R.F.
5-24-89

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAY 24 1989

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

Memorandum

Subject: Iprodione. Anticipated Residues
(Rovral®, EPA Reg. No. 264-453)
DEB Numbers 5254, 5255, 5256, 5322, 5323.

From: Jane Smith, Chemist
Special Registration Section I
Dietary Exposure Branch
Health Effects Division (H-7509C)

Thru: Richard D. Schmitt, Ph.D., Acting Branch Chief
Dietary Exposure Branch
Health Effects Division (H-7509C) Richard D Schmitt

To: M. Rossi PM Team 21
Registration Support and Emergency Response Branch
Registration Division (H-7505C)

Rhone Poulenc Agricultural Company has petitioned the Agency to established tolerances for residues of the fungicide iprodione (Rovral®) on rice. The TAS analysis estimated exposures from established uses in excess of the acceptable daily intake (ADI) for the U.S. population. These exposures were based on foods eaten with residues at the present tolerance levels and that 100% of the crops would be treated with iprodione. A second TAS analysis was conducted with usage estimates, provided by EAB, for five commodities which contribute heavily to iprodione dietary exposure. Although exposure to the U.S. population was reduced in the second TAS analysis, non-nursing infants and children ages 1 to 6 remained the two most highly exposed subgroups. For these reasons, we have been tasked to determine the anticipated residues for milk, as well as lettuce, tomatoes, grapes, stone fruits, and strawberries. Relative to milk, we were asked to consider the anticipated residues if restrictions on the feeding of peanut hay and forage to livestock and withdrawal of registration or restricting the feeding of bean forage and hay to livestock.

The residues calculated are based on the combined residues of iprodione and its metabolites as stated in the 40 CFR 180.399. The anticipated residues do <u>not</u> include percent crop treated.

1/3

In order to determine the anticipated residues in milk, previously submitted residue data from dairy cattle feed items treated at the maximum recommended application rate were averaged. The feed items included peanut feed, forage, and hay; bean cannery waste and hay; and stored corn. The average residues are as follows;

Average Residues of Iprodione on Feed Items

Feed Item		Avg. Residue
Peanut	meal	0.5 ppm
	hay	62 ppm
	hulls	2.0 ppm
Bean	seed	1.3 ppm
	cannery waste	0.05 ppm
	hay	63 ppm
Corn	stored grain	17.5 ppm

Based on these average residues, we determined that the dietary intake of iprodione residues by dairy cattle to be:

- 45 ppm on a diet of 40% stored corn grain, 30% peanut hay, and 30% bean hay.
- 40 ppm on a diet of 30% stored corn grain and 50% peanut hay.
- 31 ppm on a diet of 50% stored corn grain and 35% bean hay.
- 9 ppm on a diet of 50% stored corn grain.
- 38 ppm on a diet of 25% peanut meal and 60% peanut hay.
- 23 ppm on a diet of 20% bean seed and 35% bean hay.

Using these residue values, the anticipated residues for milk were extrapolated from dairy cattle studies conducted to determine residues in milk after feeding iprodione at fixed levels over a 28 day period to dairy cattle. Maximum residues occured during the study on day 8. Residues were <0.01, 0.099, 0.196, and 0.383 ppm at 5, 15, 50, and 200 ppm, respectively, for the feeding study. Therefore, the anticipated residues for milk are as follows;

Anticipated Residues in Milk
Based on Dairy Cattle Diet

Diet	Anticipated Residues
peanut and bean hay, corn (stored)	0.21 ppm
peanut hay and corn (stored)	0.20 ppm
bean hay and corn (stored)	0.18 ppm
corn (stored)	0.05 ppm
peanut meal and hay	0.20 ppm
bean seed and hay	0.15 ppm

The anticipated residues for lettuce, grapes, tomatoes, stone fruit, and strawberries were determined based on the maximum residue value from previously submitted residue data on these commodities treated at the maximum recommended application rate. The anticipated residues are as follows;

Anticipated Residues on Various Commodities

Commodity	Anticipated Residue
Tomatoes	2.0 ppm
juice	0.5 ppm
puree	0.5 ppm
Lettuce	25 ppm
Stone fruit	14 ppm
Strawberries	11 ppm
Grapes	50 ppm
juice	20 ppm
raisins	140 ppm

* Permanent Tolerances are pending.

The anticipated residues for grapes were determined from residue data submitted in PP#3G2787, 3F2964, and data submitted with this request (Rhone Poulenc file no. 40524, no MRID No.). The anticipated residue are relatively high as are the permanent tolerances because the study submitted in PP#3G2787 was conducted primarily on small plots of grapes treated with iprodione using backpack sprayers. Residue data submitted since reflects applications on commercial sized plots treated with commercial ground sprayers. If we only considered residue data from studies conducted on commercial plots, anticipated residues would be reduced to 5 ppm for grapes, 11 ppm for raisins, and 3 ppm for juice. If the Company were willing to petition the Agency and lower the tolerances for grapes and raisins, and these lower levels were found to be acceptable, we would consider using the ca 1/10X values presented in the new data.

cc: SF, RF, PMSD/ISB, SACB Tomerlin, JSmith, RDSchmitt
RDI:ARathman:05/23/89:EZager:05/23/89:RDSchmitt:05/24/89
H-7509C:DEB:jss:JSmith:Rm803a:CM#2:05/23/89